2018

M.Sc.

2nd Semester Examination

COMPUTER SCIENCE

PAPER—COS-204

Subject Code—26

Full Marks : 50

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Module—1

Introduction to Programming

(*Marks* : 25)

Answer any *two* questions :   2×10

1. What are the essential components of a computer ? Draw the schematic block diagram of a computer showing its

essential components. Discuss the function of each components.   2+2+6

2. (a) Discuss the important features of various generations of computers with examples.   6

    (b) What do you understand by real and virtual memory ?

                                              4

3. (a) Why do digital computer use binary numbers for their operation ?   2

    (b) Convert the following binary numbers to equivalent decimal numbers :   4×2

        (i) 11010 (ii) 1011001 (iii) 1001011 (iv) 10011010

4. (a) Perform the following addition and check the result by converting to decimal   2×3

        (i) 101011 + 110010 (ii) 101100) + 11010

    (b) Perform the following substraction using 2's complements.   2×2

        (i) 1101 − 1001 (ii) 10011010 − 1100001

Module—2

C Programming

(*Marks : 25*)

Group—A

Answer any *two* questions :   2×2

1. What is symbolic constant ?   2

2. Explain switch case with example.   2

3. What is identifier ? Give example.   2

4. Write down the characteristics of an array.   2

Group—B

Answer any *two* questions :   2×4

5. Explain preincrement and postincrement with example.
        4

6. What are the difference between while and do-while loop ?
        4

7. What is function ? Declare a function that takes two integer numbers as arguments and return sum of there.
        2+2

8. What is string ? Distinguish it from group of characters.

2+2

Group—C

Answer any *one* question :　　　1×8

9. (a) Write a C program to calculate fractional of a number.

(b) Write a C program to search an item from array of elements.

4+4

10. (a) Write a C program to generate 20 Fibonacci numbers.

(b) Write a C program to count the number of Vowels in your name.

4+4

[Internal Assessment : 10 Marks]

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